A Tribute to the Legendary Scientist Acharya Jagadis Chandra Bose

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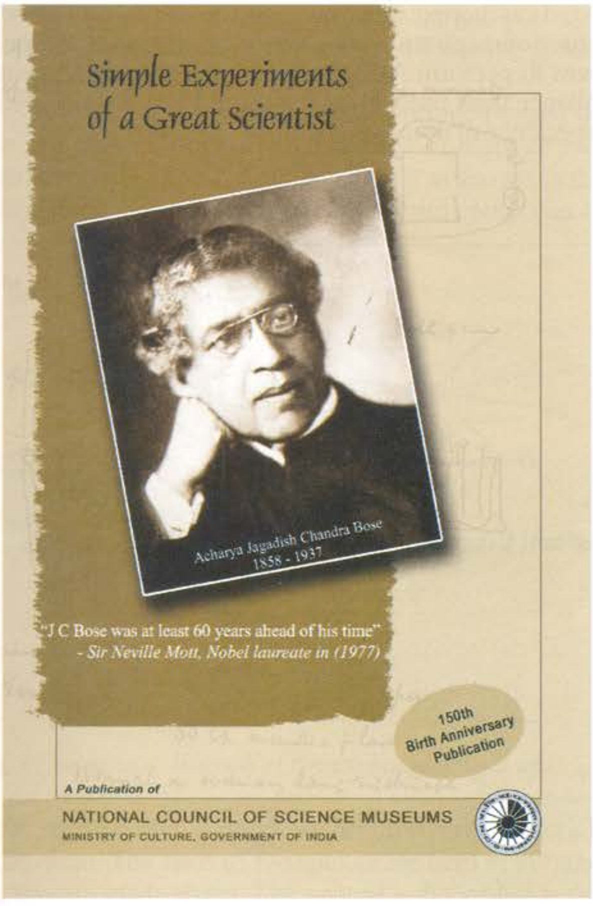
Acharya Jagadis Chandra Bose was a genius with multifaceted qualities. During his time, and afterwards too, he inspired Indians deeply with his startling inventions and fight against racism. His pioneering work in physics includes generation and reception of electromagnetic waves of millimetre wavelength (microwave), which received spontaneous recognition. On the other hand, in biological science he demonstrated that plants respond towards external stimuli like animals; but this novel findings received scarce and skeptic recognition. Nevertheless, when recognition came, he humbly submitted that he had only disseminated the knowledge known to the Indian sages for thousands of years. True to this spirit, Acharya Bose never commercialised his inventions, as he wanted to dedicate his inventions to the welfare of mankind.

Although much has been published on the life and works of Acharya J C Bose, the National Council of Science Museums (NCSM) has taken a new initiative to bring out the scientific as well humanistic qualities of this great scientist in an interactive manner through a book titled *Simple Experiments of a Great Scientist*, an interactive multimedia, and a movie 'Sir J C Bose – the Doyen of Modern Indian Science.'


Simple Experiments of a Great Scientist
Acharya Jagadish Chandra Bose
1858 - 1937
"J C Bose was at least 60 years ahead of his time"
- Sir Neville Mott, Nobel laureate in (1977)
150th Birth Anniversary Publication
A Publication of
NATIONAL COUNCIL OF SCIENCE MUSEUMS
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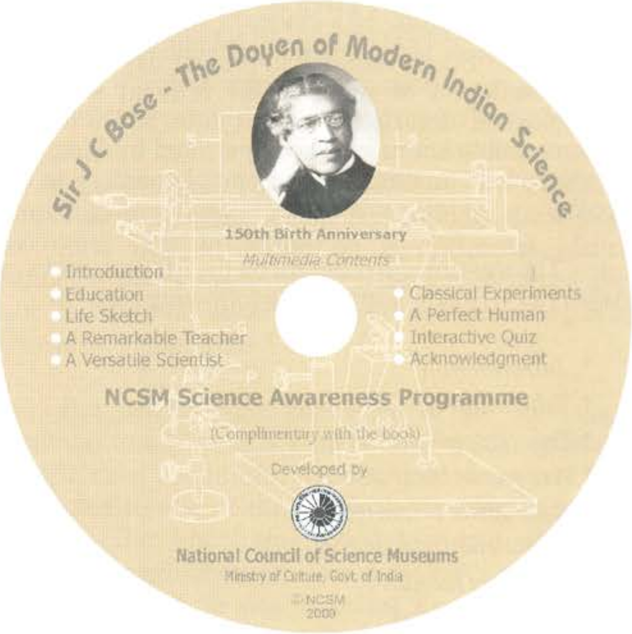

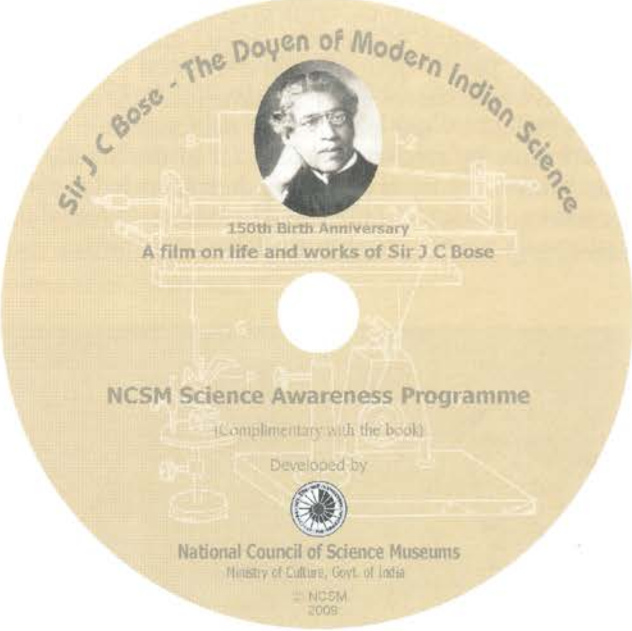
Sir J C Bose - The Doyen of Modern Indian Science
150th Birth Anniversary
A film on life and works of Sir J C Bose
NCSM Science Awareness Programme
(Complimentary with the book)
Developed by
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The book is an attempt to bring the essence of the great scientific experiments of Acharya Bose to young students. The approach is to give an account of his simple and classical experiments rather than giving a chronological description of his life and work. The first section of the book contains a brief introduction of Acharya J C Bose followed by his contribution as a scientist and historical importance of his work. In the next section, ten important experiments of Acharya

Bose are described. Each experiment is arranged in different sections such as 'Objectives', 'Experimental procedure', 'Observation', and 'Scientific explanation'. At the end of each experiment, a section titled 'Experiment that you can do' is added where some new experimental ideas are given for the students that they can perform themselves. The last section highlights the relevance of Bose's research in present day context; a brief description of some of his brilliant works; a chronological description of his life; and a list of research publications and books written by him. The movie and the multimedia are complementary to the book.

The multimedia program on the life and works of Acharya J C Bose comprises the following sections:

- *Introduction*
- *Education*
- *Life sketch*
- *A remarkable teacher*
- *A versatile scientist*
- *Classical experiments*
- *A perfect human*
- *Interactive quiz*

In the 'Classical experiments' section, the working principles of some of the very simple and inexpensive equipment, largely designed and developed by Acharya Bose have been shown through animation. This section is also enriched by the inclusion of demonstration of his experiments by renowned scientists. In the 'Interactive quiz' section, the users can verify their knowledge about the works of Acharya J C Bose. The other sections of the multimedia are presented in the form of narratives with some interesting stories associated with each. The multimedia has been developed in both, English and Hindi.

It is a common belief that Acharya Bose was the inventor of radio and that he had established the fact that plants have life. In the movie the story starts with these two basic questions that were asked to students as well as to common people. It is indeed an effort to enhance the true public perception about Acharya J C Bose. Today we can all access the benefits of technologies and witness the marvels of interdisciplinary fields. But how did it all start and had anybody in India perceived such a concept? This interesting question is addressed in the movie and It has been shown why Acharya J C Bose was 60 years ahead of his time, as remarked by Noveile Mott, a Nobel Prize winner in physics in 1977.

The vanishing border line between living and nonliving, the response phenomena in plants, and wireless communication all are the pillars of present day technologies. The birth of the transistor, the biggest revolution in 20th century, was predicted by Acharya Bose in his invention of detectors. These fantastic outcomes of his research have been shown in the movie. Acharya Bose had developed more than a hundred instruments and many of them are shown in the movie. The duration of the movie is 40 minutes. The movie has been made in English and Hindi.

It is hoped that this effort of NCSM will be a source of inspiration for young students and would help them to perform Acharya Bose's classic experiments, enhance their basic knowledge, and give them a joyful experience of doing science.

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